

# PIER Graduate Week 2022

Interdisciplinary lecture  
and workshop week for PhD  
students



21 – 24  
FEB 2022

ONLINE



Partnership of  
Universität Hamburg and DESY



## Course Overview Graduate Week 2022

Programme & registration:  
[graduateschool.pier-hamburg.de/gradweek2022](http://graduateschool.pier-hamburg.de/gradweek2022)

Morning sessions: Introductory courses

Time	Course	Monday, 21 FEB	Tuesday, 22 FEB	Wednesday, 23 FEB	Thursday, 24 FEB
09:00 – 10:30	<b>/ A1 Introductory course Particle &amp; Astroparticle Physics</b>	<b>Gregor Kasieczka, Universität Hamburg</b>  "Machine learning in Particle Physics"	<b>Gregor Kasieczka, Universität Hamburg</b>  "Machine learning in Particle Physics"	<b>Gregor Kasieczka, Universität Hamburg</b>  "Machine learning in Particle Physics"	<b>Gregor Kasieczka, Universität Hamburg</b>  "Machine learning in Particle Physics"
	<b>/ A2 Introductory course Nanoscience</b>	<b>Irene Fernandez-Cuesta, Universität Hamburg</b>  "Nanofabrication techniques"	<b>Helmut Schift, Paul Scherrer Institute</b>  "Nanoimprint and 3D lithography"	<b>Stephan Sylvest Keller, Technical University of Denmark</b>  "Carbon micro- and nanofabrication for health tech, life science and energy applications"	<b>Dorota Koziej, Universität Hamburg</b>  "Nanodevices and X-ray nanoimaging"
10:30 – 11:00	Coffee break				
11:00 – 12:30	<b>/ B1 Introductory course Infection &amp; Structural Biology</b>	<b>Baris Tursun, Universität Hamburg</b>  "Cellular safeguarding in the context of Reprogramming and Aging I"	<b>Baris Tursun, Universität Hamburg</b>  "Cellular safeguarding in the context of Reprogramming and Aging II"	<b>Stefan Hoth, Universität Hamburg</b>  "Plant pathogen defense meets structural biology I"	<b>Stefan Hoth, Universität Hamburg</b>  "Plant pathogen defense meets structural biology II"
	<b>/ B2 Introductory course Photon Science</b>	<b>Kartik Ayyer, MPSD Hamburg</b>  "Diffractive Imaging"	<b>Kartik Ayyer, MPSD Hamburg</b>  "Diffractive Imaging"	<b>Daniela Rupp, ETH Zürich</b>  "Diffractive Imaging"	<b>Marc Vrakking, MBI Berlin</b>  "Velocity Map Imaging"
12:30 – 14:00	Lunch break				

Time	Course	Monday, 21 FEB	Tuesday, 22 FEB	Wednesday, 23 FEB	Thursday, 24 FEB
14:00 – 15:30	<b>/ C1 Focus course Particle &amp; Astroparticle Physics</b>	<b>Sven Heinemeyer, UAM, Madrid</b> "Window to New Physics via the Precision Frontier"	<b>Sven Heinemeyer, UAM, Madrid</b> "Window to New Physics via the Precision Frontier"	<b>Ayres Freitas (t.b.c), Pittsburgh University</b> "Window to New Physics via the Precision Frontier"	<b>Ayres Freitas (t.b.c.), Pittsburgh University</b> "Window to New Physics via the Precision Frontier"
	<b>/ C2 Focus course Photon Science</b>	<b>Karl K. Berggren, MIT, Cambridge</b> "The Quantum Electron Microscope"	<b>Karl K. Berggren, MIT, Cambridge</b> "The Quantum Electron Microscope"	<b>Daniela Rupp, ETH Zürich</b> "Diffractive Imaging"	<b>Sebastian Trippel, DESY/Universität Hamburg</b> "Advanced 3D Electron/Ion Detection"
	<b>/ C3 Transferable skills</b>	<b>Alexander Britz</b> "Basic Python for Scientific Computing" moved to 28 February - 2 March 2022			
	<b>/ C4 Transferable skills</b>	<b>Alexander Britz</b> "Advanced Python for Scientific Computing" moved to 2 + 3 March 2022			
15:30 – 16:00	Coffee break				
16:00 – 17:30	<b>/ D1 Focus course Infection &amp; Structural Biology</b>	<b>Jens Bosse, HPI / MHH / CSSB</b> "Quantitative Virology"	<b>Christian Löw, EMBL / CSSB</b> "Integrative modeling based on electron microscopy data"	<b>Holger Sondermann, DESY / CSSB</b> "Membrane protein structural biology"	<b>Maya Topf, HPI/UKE/ CSSB &amp; Jan Kosinski, EMBL/CSSB</b> "Integrative Modeling"
	<b>/ D2 Focus course Nano Science</b>	<b>Irene Fernandez-Cuesta, Universität Hamburg</b> "Nanoimaging"	<b>Victor Cadarso Busto, Monash University</b> "Lab on a Chip"  <b>Changed lecture time: 8 - 9:30 p.m.</b>	<b>Silvan Schmid, TU Vienna</b> "Nanodevices with resonators"	<b>Ivan Vartaniants, DESY</b> "Nanoimaging with X-Rays"
	<b>/ D3 Transferable skills</b>	<b>Nicola Findeis</b> "Project management for PhD students" moved to 28 February + 1 March 2022			
	<b>/ D4 Transferable skills</b>	<b>Nicola Findeis</b> "Project management for PhD students" moved 3 + 4 March 2022			
17:30 – 18:00	End of event				
18:00 – 20:00					